

In the Claims:

Please amend the claims pursuant to 37 CFR 1.121 as follows. In addition, please cancel claims 1-13, without prejudice.

Claims 1 - 13(cancelled).

Claim 14 (currently amended): A method for detecting the multi-fluorescence detection of fluorophores by means of a simultaneous measurement of decay time of the fluorescences, comprising the steps of

~~measuring the decay time of the fluorescences, where the excitation wave lengths for the individual fluorophores, delayed through an optical delay (4) in the range of sub-nanoseconds to some milliseconds, are supplied to an object of examination so that the fluorescences is capable of being excited and detected one after the other~~

supplying an impulse laser (1) as an excitation source having an excitation wavelength, providing an emitted beam;
splitting up the emitted beam and conducting the beam to coloring material lasers (3);
delaying the excitation wave lengths through an optical delay (4) in the range of sub-nanoseconds to some milliseconds;
conducting excitations for the individual fluorophores to the object of examination (7);
performing excitation processes of the individual fluorescence materials sequentially, one after the other;
conducting the fluorescence signals to an optical detector (9);
detecting the fluorescence signals one after the other;
conducting an electric signal of the detector (9) to a gated integrator (10).

Claim 15 (previously added): The method according to claim 14, wherein for the differentiation between at least two fluorophores in addition to their spectral characteristics, the

decay behavior of the fluorescence processes is examined by the displacement of electronic gates in the nanosecond range along a timing axis.

Claim 16 (previously added): The method according to Claim 14, wherein the delay is formed by light wave conductors.

Claim 17 (previously added): The method according to Claim 14, wherein the electronic time gate is positioned in the maximum of the timing pattern of the life duration of the fluorescence signal, in order to selectively detect fast decaying fluorescence processes.

Claim 18 (previously added): The method according to Claim 14, wherein the electronic time gate is positioned in the fade-out of the timing pattern of the life duration of the fluorescence signal, in order to selectively detect slow decaying fluorescence processes.

Claim 19 (previously amended): The method according to the Claim 14, wherein several different fluorescence coloring materials are detected in the liquid chromatography.

Claim 20 (previously amended): The method according to the Claim 14, wherein fluorescence coloring materials are detected in multi-well plates.

Claim 21 (presently amended): The method according to the Claim 14, wherein a multiple fluorescence detection is carried out on living/dead tissue.

Claim 22 (presently amended): The method according to the Claim 14, wherein a multiple fluorescence detection is carried out on a planar carrier.

Claim 23 (previously canceled)